United Nations A/54/585/Add.4

General Assembly

Distr.: General
3 December 1999
English
Original: Arabic

Fifty-fourth session
Agenda item 97 (d)

Macroeconomic policy questions: science and technology for development

Report of the Second Committee*

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I. Introduction

1. The Second Committee held a substantive debate on agenda item 97 (see A/54/585, para. 2). Action on sub-item (d) was taken at the 15th and 44th meetings, on 19 November and 1 December 1999. An account of the Committee's consideration of the sub-item is contained in the relevant summary records (A/C.2/54/SR.15 and 44).

II. Consideration of draft resolutions A/C.2/54/L.4 and A/C.2/54/L.48

2. At the 15th meeting, on 19 October, the representative of Guyana, on behalf of the States Members of the United Nations that are members of the Group of 77 and China, introduced a draft resolution entitled "Science and technology for development" (A/C.2/54/L.4), which read:

"*The General Assembly*,

"*Reaffirming* the continuing validity of the Vienna Programme of Action on Science and Technology for Development, adopted in 1979, its resolution 52/184 of 18 December 1997, and all other relevant United Nations resolutions and decisions, as well as the outcomes of major United Nations conferences and their five-year reviews concerning science and technology for development,

* The report of the Committee on this item will be issued in six parts, under the symbol A/54/585 and Add 1-5.

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"*Reaffirming also* the common vision of science and technology as a common heritage of mankind in which the entitlement to the knowledge and its derived benefits for development should not be restricted,

"*Stressing* that the pace of globalization is influenced in large measure by the development of science and technology and that developing countries should be assisted to become well-equipped with the knowledge of science and technology so as to enable them to benefit from the opportunities offered by globalization and avoid the risk of their marginalization in the process of globalization,

"*Noting* with concern the introduction of agricultural seedlings that would impair predictable season-to-season harvests and crop production in developing countries,

"*Recognizing* the importance of establishing and strengthening partnership and networking between firms from the South and the North to build and strengthen the technological capabilities and skills needed for developing countries to compete in the international markets,

"*Recognizing also* that information technologies are important requisites for planning, development and decision-making in science and technology, and recognizing also their far-reaching implications for society,

"*Noting* the work being undertaken by the Commission on Science and Technology for Development in its work programme for member States, especially the developing countries, and reaffirming its unique role as a global forum for examining science and technology questions, improving the understanding of science and technology policies and formulating recommendations and guidelines on science and technology matters within the United Nations system, in relation to development,

"*Expressing its profound concern* over the continued inadequacy of resources for fostering science and technology for development, and the lack of political will to fulfil the commitments for provision of new and additional resources in this respect,

"*Expressing its concern* over the fact that the developing countries are increasingly facing obstacles in respect of accessing new technologies, with export restrictions being imposed under various pretexts, and emphasizes that intellectual property rights regimes should not increase the cost of technology transfer to developing countries,

"*Expressing its concern* over the dominant role of large private industry groups in biotechnology, particularly in agriculture, pharmaceutical and health care, whose interests may lead to the control and prevention of dissemination of research knowledge that could benefit mankind,

"*Taking note* of the report of the Secretary-General on macroeconomic policy questions: science and technology for development,

"1. *Reaffirms* the important role that the United Nations should play in the promotion of cooperation in science and technology as one of its priorities, and in the enhancement of support and assistance to developing countries in their efforts to achieve sustained economic growth and sustainable development, and emphasizes the need to enhance the capability of the relevant United Nations organizations and bodies, especially the United Nations Conference on Trade and Development and the Commission on Science and Technology for Development, to address relevant issues in the field of science and technology;

"2. *Reaffirms* Economic and Social Council resolution 1999/61 of 30 July 1999, in which the Council approved the provisional agenda and substantive theme for the fifth session of the Commission on Science and Technology for Development;

"3. *Recognizes* the role of the Commission on Science and Technology for Development in coordinating the activities of the United Nations system in the area of science and technology for development, and emphasizes the importance of the activities that are to be pursued within the framework of the Commission, including a broad spectrum of new global challenges in science and technology, and encourages support to these undertakings;

"4. *Recognizes also* the importance for developing countries of having access to science and technology so as to enhance their productivity and competitiveness in the world market, and stressing the need to promote, facilitate and finance, as appropriate, access to and transfer of environmentally sound technologies and the corresponding know-how, including privately owned technologies, in particular to the developing countries, on concessional, preferential and favourable terms, taking into account the special needs of developing countries;

"5. *Reaffirms* that capacity-building in science and technology in developing countries should remain a priority issue in the United Nations agenda, and urges that international cooperation efforts be intensified and strengthened towards developing countries' endogenous capacity-building in science and technology, including their capacity to utilize scientific and technological developments from abroad as well as to modify and adapt them to suit local conditions;

"6. *Recognizes* the role of the public and private sector in science and technology for development, in particular in the transfer and development of science and technology capabilities;

"7. *Reiterates* the importance of facilitating the transfer of technology to developing countries, in particular in knowledge-intensive sectors, with the objective of enhancing technological capacities and capabilities and skills in developing countries;

"8. *Emphasizes* the role of partnership and networking mechanisms for the integration of developing countries into the world economy, in particular by strengthening national capacity-building, promoting market access across a large number of sectors and industries, dissemination of new business and management cultures, especially among small and medium-sized enterprises, and expanding opportunities for them to leverage their own research and development activities;

"9. *Reaffirms* the need to fulfil the commitments on the provision of financial resources and transfer of technology contained in chapter 34 of Agenda 21, the outcome of the nineteenth special session of the General Assembly and the Agenda for Development;

"10. *Recognizes* that, while applications of agricultural biotechnology in developing countries, if associated with the capacity to ensure their compatibility with human health and developing countries' ecosystems, provide viable opportunities for improving productivity and increasing production capacity in the agricultural sector, developing countries have limited access to such technologies and face a number of impediments in their development of biotechnology;

"11. *Calls* for farmer-friendly biotechnology that will foster crop reproduction, improve season-to-season harvests while enhancing economic growth and the sustainable development of developing countries;

"12. *Encourages* the Commission on Science and Technology for Development to expand, to the extent possible, the scope of its deliberations on the theme 'National capacity-building in biotechnology' with particular attention to agriculture and the agro-industry, health and environment for the inter-sessional period 1999-2001, and stresses the necessity of promoting linkages and partnership among public and private sectors and centres of excellence and networks in developed and developing countries with the objective of strengthening national research capability and capacity in biotechnology in developing countries;

"13. *Stresses* the need to establish science and technology as a cross-cutting theme within the work of the United Nations, particularly through effective and better coordination, including international cooperation in technology assessment, monitoring and forecasting, as well as in the area of information and communication technologies, partnership and networking for innovative and new technologies, in biotechnology and in providing an environment conducive to the development of new environmentally sound technologies, and calls upon United Nations organizations, funds and programmes to work in a coordinated manner to develop a catalogue of proven technologies to enable developing countries to make effective choices in state-of-the-art technologies;

"14. *Encourages* the United Nations system to ensure, where appropriate in its operational activities, the provision for the transfer of appropriate technical know-how and technological skills to developing countries;

"15. *Reaffirms* the need for adequate financial resources on a continuous and assured basis to foster science and technology for development, in particular to promote endogenous capacity-building in developing countries in accordance with their priorities;

"16. *Emphasizes* that the barriers and restrictions on the transfer of technology to developing countries, including new technology regimes established unilaterally and/or plurilaterally, should be removed, while fiscal and other incentives for the transfer of new and innovative technologies should be provided, and in this regard invites relevant international bodies to review and ensure that the agreement on trade-related aspects of intellectual property rights does not hinder the acquisition by developing countries of appropriate technologies;

"17. *Recognizes* the importance of cooperation among developing countries in the field of science and technology, building on their complementarities, and the need to further advance such cooperation, through the establishment and/or the strengthening of national technology and information centres in developing countries and their networking on regional, subregional, interregional and global levels to promote technology research, training and dissemination as well as joint projects in developing countries, and urges the organizations and bodies of the United Nations system and other relevant international, regional and subregional organizations and programmes to provide continued and enhanced support, through technical assistance and financing for such efforts, further calls for cooperation between centres of excellence, universities and research institutions, and urges the international community to support such initiatives through financial and technical assistance;

"18. *Invites* the relevant bodies of the United Nations system to provide assistance and promote cooperation in the area of partnership and networking, biotechnology, information and communication technologies, including in the design and implementation of national strategies on such technologies or mechanisms;

"19. *Requests* the Secretary-General to present, through the Economic and Social Council, to the General Assembly at its fifty-fifth session, for its consideration, proposals for strengthening the coordination of mechanisms on the Commission on Science and Technology for Development within the United Nations Conference on Trade and Development in order to ensure coordination of the various efforts and activities in the area of new and innovative technologies and their applications, such as in electronic commerce, with the objective of promoting complementarity of activities within the United Nations system;

"20. *Requests* the Secretary-General to submit to the General Assembly at its fifty-fifth session a report on the progress made in the implementation of the present resolution."

3. In introducing the draft resolution, the representative of Guyana orally revised operative paragraph 19 by inserting the words "in particular, information and communication technologies" after the words "of new and innovative technologies".

4. At the 44th meeting, on 1 December, the Vice-Chairman of the Committee, Giovanni Brauzzi (Italy), introduced a draft resolution entitled "Science and technology for development" (A/C.2/54/L.48), which he submitted on the basis of informal consultations held on draft resolution A/C.2/54/L.4.

5. At the same meeting, the Committee adopted draft resolution A/C.2/54/L.48 (see para. 7).

6. In the light of the adoption of draft resolution A/C.2/54/L.48, draft resolution A/C.2/54/L.4 was withdrawn by its sponsors.

III. Recommendation of the Second Committee

7. The Second Committee recommends to the General Assembly the adoption of the following draft resolution:

Science and technology for development

The General Assembly,

Reaffirming the continuing validity of the Vienna Programme of Action on Science and Technology for Development,[1] adopted in 1979, its resolution 52/184 of 18 December 1997 and all other relevant United Nations resolutions and decisions, as well as the outcomes of major United Nations conferences and their five-year reviews concerning science and technology for development,

Taking note of those outcomes, including the Science Agenda: Framework for Action, adopted by the World Conference on Science, held at Budapest from 26 June to 1 July 1999,

[1] *Report of the United Nations Conference on Science and Technology for Development, Vienna, 20-31 August 1979* (United Nations publication, Sales No. E.79.I.21 and corrigenda), chap. VII.

Noting that issues related to utilizing science and technology for development were dealt with in the "Partners for Development" summit held at Lyon under the auspices of the United Nations Conference on Trade and Development from 9 to 12 November 1998,

Reaffirming the Common Vision on the future of science and technology for development[2] as approved by the Commission on Science and Technology for Development at its fourth session, which stated that science and technology should be considered the common heritage of mankind and should be shared,

Stressing that the pace of globalization is influenced in large measure by the development of science and technology and that developing countries should be assisted in becoming well equipped with the knowledge of science and technology as well as the practical skills associated with technology management so as to enable them to benefit from the opportunities offered by globalization and avoid the risk of their marginalization in the process of globalization,

Recognizing the importance of establishing and strengthening partnership and networking among public and private sectors and academic institutions from the South and the North to build and strengthen the technological capabilities and skills needed for developing countries to compete in the international markets,

Recognizing also that information technologies are important requisites of research, planning, development and decision-making in science and technology, and that they have far-reaching implications for society,

Noting the work being undertaken by the Commission in its work programme for Member States, especially for the developing countries, and its work with some countries with economies in transition, and reaffirming its unique role as a global forum for examining science and technology questions, improving the understanding of science and technology policies and formulating recommendations and guidelines on science and technology matters within the United Nations system in relation to development,

Recognizing the need for adequate resources, including through provision of new and additional resources from all sources, to be devoted to fostering science and technology for development,

Recognizing also the need to address the obstacles faced by developing countries in accessing new technologies, while taking into account the need to protect intellectual property rights and the special needs of developing countries,

Recognizing further the need for dissemination of research knowledge and sharing of technologies and expertise in the field of biotechnology, in particular in the areas of agriculture, pharmaceuticals and health care, that could benefit mankind,

Taking note of the report of the Secretary-General,[3]

1. *Reaffirms* the important role that the United Nations should play in the promotion of cooperation in science and technology as one of its priorities, and in the enhancement of support and assistance to developing countries in their efforts to achieve sustainable development, and emphasizes the need to enhance the capability of the relevant United Nations organizations, including the United Nations Conference on Trade and Development, to address relevant issues in the field of science and technology;

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[2] See *Official Records of the Economic and Social Council, 1999, Supplement No. 11* (E/1999/31), chap. IV, para. 22.

[3] A/54/270 and Corr.1.

2. *Recalls* Economic and Social Council resolution 1999/61 of 30 July 1999, and Council decision 274 of 28 July 1999 in which the Council approved the provisional agenda and substantive theme for the fifth session of the Commission on Science and Technology for Development;

3. *Recognizes* the role of the Commission in coordinating the activities of the United Nations system in the area of science and technology for development, emphasizes the importance of the activities that are to be pursued within the framework of the Commission, including a broad spectrum of new global challenges in science and technology, and encourages support to these undertakings;

4. *Also recognizes* the importance for developing countries of having access to science and technology so as to enhance their productivity and competitiveness in the world market, and stresses the need to promote, facilitate and finance, as appropriate, access to and transfer of environmentally sound technologies and the corresponding know-how, in particular to the developing countries, on concessional, preferential and favourable terms, as mutually agreed, taking into account the need to protect intellectual property rights and the special needs of developing countries;

5. *Further recognizes* the role of Governments in science and technology for development, in particular in providing appropriate regulatory frameworks and incentives for the development of science and technology;

6. *Stresses* the role of Governments and international development institutions in facilitating the transfer of privately owned technologies on concessional terms, as mutually agreed, to developing countries, especially the least developed countries;

7. *Recognizes* the role of partnership among the public and private sectors, academic research centres and international funding agencies in science and technology for development, in particular in the transfer, creation and development of science and technology capabilities;

8. *Reaffirms* that capacity-building in science and technology in developing countries should remain a priority issue in the United Nations agenda, and urges that international cooperation efforts be intensified and strengthened towards developing countries' endogenous capacity-building in science and technology, including their capacity to utilize scientific and technological developments from abroad as well as to modify and adapt them to suit local conditions;

9. *Recognizes* the role of the public and private sectors, industry and academia in science and technology for development, in particular in the transfer and development of science and technology capabilities;

10. *Stresses* the importance of facilitating the transfer of technology to developing countries, in particular in knowledge-intensive sectors, with the objective of enhancing technological capacities, capabilities and skills in developing countries;

11. *Recognizes* the need for Governments and regional and international bodies to take measures to ensure better access to and participation in scientific and technological areas for women, especially where they are not represented or are under-represented, bearing in mind the important role that they can play in further developing innovation and methodologies for science and technology;

12. *Emphasizes* the role of partnership and networking mechanisms for the integration of developing countries and countries with economies in transition into the world economy, in particular by strengthening national capacity-building, promoting market access across a large number of sectors and industries, disseminating new business and management

cultures, especially among small and medium-sized enterprises, and expanding opportunities for them to leverage their own research and development activities;

13. *Reaffirms* the need to fulfil the commitments on the provision of financial resources and transfer of technology contained in chapter 34 of Agenda 21,[4] the outcome of the nineteenth special session of the General Assembly and the Agenda for Development;[5]

14. *Recognizes* that, while applications of agricultural biotechnology in developing countries, if associated with the capacity to ensure their compatibility with human health and ecosystems, provide viable opportunities for improving productivity and increasing production capacity in the agricultural sector, a large number of developing countries have limited access to such technologies and face a number of impediments in their development of biotechnology;

15. *Also recognizes* the need for studying the impact of new biotechnologies on human health, the welfare and livelihood of the farmers, and poverty in developing countries;

16. *Calls* for safe biotechnology that will, *inter alia*, foster crop reproduction and enhance the development of developing countries;

17. *Reaffirms* that the substantive theme for the work of the Commission on Science and Technology for Development during the inter-sessional period 1999-2000 will be "National capacity-building in biotechnology", with particular attention to agriculture and the agro-industry, health and the environment; the theme will include human resource development through basic science education, research and development, as well as their interdisciplinary aspects; the transfer, commercialization and diffusion of technology; increasing public awareness and participation in science policy-making; and bioethics, biosafety, biodiversity, and the legal and regulatory matters affecting these issues to ensure equitable treatment;

18. *Stresses* the necessity of promoting linkages and partnership among public and private sectors and centres of excellence and networks in developed and developing countries and countries with economies in transition with the objective of strengthening national research capability and capacity in biotechnology in developing countries;

19. *Also stresses* the need to establish science and technology as a cross-cutting theme within the work of the United Nations, particularly through effective and better coordination, including of international cooperation in technology assessment, monitoring and forecasting, information and communication technologies, partnership and networking for innovative and new technologies, biotechnology and providing an environment conducive to the development of new environmentally sound technologies, and calls upon United Nations organizations, funds and programmes to work in a coordinated manner to develop a catalogue of proved technologies to enable developing countries to make effective choices in state-of-the-art technologies;

20. *Encourages* the United Nations system to ensure, where appropriate in its operational activities, the provision for the transfer of appropriate technical know-how and technological skills to developing countries;

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[4] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[5] General Assembly resolution 51/240, annex.

21. *Reaffirms* the need for adequate financial resources on a continuous and assured basis to foster science and technology for development, in particular to promote endogenous capacity-building in developing countries in accordance with their priorities;

22. *Emphasizes* the need to reduce regulatory limitations on the transfer of technology, particularly to developing countries, and stresses the importance of identifying barriers to and unjustifiable restrictions on the transfer of technologies with a view to addressing such constraints while creating specific incentives, fiscal and otherwise, for the transfer of new and innovative technologies;

23. *Recognizes* the importance of cooperation among developing countries in the field of science and technology, building on their complementarities, and the need to further advance such cooperation through the establishment and/or the strengthening of national technology and information centres in developing countries and their networking on regional, subregional, interregional and global levels to promote technology research, training and dissemination as well as joint projects in developing countries, urges the organizations and bodies of the United Nations system and other relevant international, regional and subregional organizations and programmes to provide continued and enhanced support through technical assistance and financing for such efforts, calls for further cooperation between centres of excellence, universities and research institutions, and urges the international community to support such initiatives, where appropriate, through financial and technical assistance;

24. *Also recognizes* the importance of maintaining mutually beneficial scientific and technological cooperation between and among developing countries and countries with economies in transition;

25. *Invites* the relevant bodies of the United Nations system to provide assistance and promote cooperation in the areas of partnership and networking, biotechnology, and information and communication technologies, including in the design and implementation of national strategies on such technologies or mechanisms;

26. *Requests* the Secretary-General to submit to the General Assembly for consideration at its fifty-fifth session, through the Economic and Social Council, without prejudice to the periodicity of this item, proposals for strengthening the coordination of mechanisms on the Commission on Science and Technology for Development within the United Nations Conference on Trade and Development in order to ensure coordination of the various efforts and activities in the area of new and innovative technologies, in particular information and communication technologies, and their applications, such as in electronic commerce, with the objective of promoting complementarity of activities within the United Nations system;

27. *Also requests* the Secretary-General to submit to the General Assembly at its fifty-fifth session a report on the progress made in the implementation of the present resolution.